

### REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 54-78 are pending in the application subsequent to entry of this Amendment.

As a preliminary matter, applicants note the examiner has not acknowledged receipt of a copy of the certified copy of the underlying priority document Japanese application 2002-83906 of March 25, 2002. This application is a national stage filing of PCT application PCT/JP03/03511 and among the documents of record as of February 28, 2005, the mailing of the Notice of Acceptance of Application Under 35 USC §371 is "priority documents filed on 09/27/2004". In due course acknowledgement of receipt of these priority documents is requested.

Counsel also notes that copies of the references cited in the International Search Report were also acknowledged in the same February 28, 2005 communication.

#### Discussion of Amendment of the Claims

The claims have been amended in order to more particularly point out and distinctly claim that which applicants regard as their invention and direct them to preferred aspects of the disclosure. Counsel notes that all of the issues raised in the outstanding Official Action relate to prior art rejections and that there are no rejections or objections directed to the previous set of claims.

Correspondence between claims at the time of the Office Action and new claims is as follows:

Claims at O.A.	26	27	28	29	30	31	32	33	34	35
New claims	54	55	-	-	56	57	58	59	60	61
Claims at O.A.	36	37	38	39	40	41	42	43	44	45
New claims	62	63	64	65	66	67	68	-	69	70
Claims at O.A.	46	47	48	49	50	51	52	53		
New claims	71	72	73	74	75	76	77	78		

Claim 54 is supported in page 13, lines 1-17, page 13, line 27 to page 14, line 2, page 10, line 31 to page 11, line 17, page 15, lines 21-25, page 17, lines 14-26, page 1, line 27 to page 5, line 24, etc. of the English text.

As to the claims 55 and 58, there is support in page 13, lines 18-26, etc. of the English text.

As to claim 57, there is support in page 14, lines 6-16 of the English text.

As to claims 59 and 60, there is support in page 17, lines 14-26, page 1, line 27 to page 5, line 24, etc. of the English text.

As to claim 61, there is support in page 17, lines 14-26, page 1, line 27 to page 5, line 24, etc. of the English text.

As to claim 68, there is support in page 20, lines 13-14, page 25, lines 8- 15, etc. of the English text.

As to claim 76, there is support in page 22, line 16 to page 23, line 17, etc. of the English text.

As to claim 78, there is support in page 25, line 8 to page 26, line 13, etc. of the English text.

It is respectfully submitted that claims 54-78 are based on information disclosed in the application as filed and do not include added subject matter. Next the various prior art rejections are addressed with reference to the item numbers employed in the Official Action.

Response to the Rejection Stated in Item 2 of the Office Action

It is said "Claims 26, 29, 31, 33-34, 38 and 40 are rejected under 35 U.S.C. 102 (b) as being anticipated by Hanano (GB 2257712 A)."

However, what are exemplified as the inorganic compound to be a nucleus in Hanano are metal oxides, molybdenum disulfide, etc. -- the polyvalent metal salt of phosphoric acid in new claim 54 is not mentioned. Further, the coating substance in new claim 54 is a metallic soap formed by reaction of the nucleus substance with an alkali metal salt, ammonium salt or water soluble ester of a fatty acid (hereinafter, referred to as alkali soap or the like) and differs from the metallic soap merely mixed with the inorganic compound or merely coating the inorganic compound.

Therefore, new claims 54, 57, 59, 60, 64 and 66 are novel.

Response to the Rejection Stated in Item 3 of the Office Action

It is said "Claims 26, 28-31 and 33-34 are rejected under 35 U.S.C. 102 (b) as being anticipated by Worms (U.S. Pat. No. 3,619,264)." However, what are mentioned as the inorganic compound to be treated in Worms are oxides, silicates and carbonates of polyvalent metals -- the polyvalent metal salt of phosphoric acid in new claim 54 is not mentioned. Therefore, new claims 54, 56-57 and 59-60 are novel.

Response to the Rejection Stated in Item 4 of the Office Action

It is said "Claims 27 and 32 are rejected under 35 U.S.C. 102 (b) as being anticipated by Worms in light of the evidence provided by Linton (U.S. Pat. No. 5,024,826)." However, new claims 55 and 58 are novel for the same reason as in item 3 above.

Response to the Rejection Stated in Item 5 of the Office Action

It is said "Claims 26, 28-29 and 33 are rejected under 35 U.S.C. 102 (b) as being anticipated by Tanioka (U.S. Patent No. 4,192,793)." However, the substance to be coated in Tanioka is calcium hydroxide, and the polyvalent metal salt of phosphoric acid in new claim 54 is not mentioned. Therefore, new claims 54 and 59 are novel.

Response to the Rejection Stated in Item 6 of the Office Action

It is said "Claims 26-29 and 31-33 are rejected under 35 U.S.C. 102 (b) as being anticipated by Saeki (JP11-100205)."

However, the substance to be treated in Saeki is amorphous calcium phosphate, and the specific polyvalent metal salt of phosphoric acid as the nucleus substance in new claim 54 is not mentioned. Further, the coating substance in new claim 54 is a metallic soap formed by reaction of the nucleus substance with an alkali soap or the like and differs from a metallic soap that is merely a dispersion-mixed with the amorphous calcium phosphate. Therefore, new claims 54, 55 and 57-59 are novel.

For reference, an English translation of claim 1 and paragraph 0014 of Saeki is as follows:

Claim 1

Surface treated amorphous calcium phosphate particles obtained by dispersion-mixing (by) mixing aggregated particles of amorphous calcium phosphate having an average primary particle size of 0.04 to 1  $\mu$ m with a surface treating agent.

Paragraph number 0014

As the surface treating agent used in the invention, there can be mentioned fatty acids such as stearic acid, lauric acid, myristic acid, palmitic acid, oleic acid and behenic acid; metallic soaps including metallic salts of stearic acid such as calcium stearate, magnesium stearate, zinc stearate and aluminum stearate, and metallic salts of lauric acid, myristic acid, palmitic acid, oleic acid, behenic acid and the like; etc.

Response to the Rejection Stated in Item 9 of the Office Action

It is said "Claims 35-37 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Worms in view of Tanioka in light of the evidence provided by Linton." However, neither of the cited references mentions the specific polyvalent metal salt of phosphoric acid as a nucleus claimed in new claim 54, as the inorganic compound to be coated or treated, and, therefore, it is believed that new claims 61-63 are unobvious over these cited references and are patentable.

Response to the Rejection Stated in Item 10 of the Office Action

It is said "Claims 38-41 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Saeki in view of Ichitsuka (U.S. Pat. No. 5,039,408)." However, the substance to be treated in Saeki is amorphous calcium phosphate, and the specific polyvalent metal salt of phosphoric acid as a nucleus in new claim 54 is not mentioned in either of the cited references.

Further, the coating substance in new claim 54 is a metallic soap formed by reaction of the nucleus substance with an alkali soap or the like and differs from the metallic soap which is merely a-dispersion-mixed with the amorphous calcium phosphate.

From the above two points, it is believed that new claims 64-67 are unobvious over these cited references and are patentable.

Response to the Rejection Stated in Item 11 of the Office Action

It is said "Claims 42-46, 49 and 53 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Saeki in view of Shirkhanzadeh (U.S. Pat. No. 5,211,833)." However, the substance to be treated in Saeki is amorphous calcium phosphate, and the specific polyvalent metal salt of phosphoric acid as a nucleus as claimed in new claim 54 is not mentioned in either of the cited references.

Further, the uses of the surface treated amorphous calcium phosphate in Saeki are fillers or additives for cosmetics, coatings, inks, toners, greases for machines, plastics, foods, ceramics

and the like (paragraph 0001), and, in Examples 2 and 3, this surface treated amorphous calcium phosphate is used as a component of foundations. There is no mention at all to use it as a component of solutions for electrolysis. On the other hand, it is calcium phosphate itself and not amorphous calcium phosphate surface treated with a metallic soap that is used as a component of solutions for electrolysis in Shir Khanzadeh. One skilled in the art would have never conceived the surface treated amorphous calcium phosphate of Saeki used in different utilization fields to be used as a component of solutions for electrolysis in Shir Khanzadeh which requires the use of calcium phosphate itself, in place of calcium phosphate.

Furthermore, the coating substance in new claim 54 is a metallic soap formed by the reaction of the nucleus substance with an alkali soap or the like and differs from the metallic soap which is merely a dispersion mixed with the amorphous calcium phosphate.

From the above three points, it is believed that new claims 68-71, 74 and 78 are unobvious over these cited references and are patentable.

Response to the Rejection Stated in Item 12 of the Office Action

It is said "Claims 47-48 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Saeki in view of Shir Khanzadeh as applied to claims 42-46, 49, and 53 above, and further in view of Lasmore (U.S. Pat. No. 4,461,680)."

The response to this is the same as in item 11 above. However the substance to be treated in Saeki is amorphous calcium phosphate, and the specific polyvalent metal salt of phosphoric acid as a nucleus in new claim 54 is not mentioned in either of the cited references.

Further, the end uses of the surface treated amorphous calcium phosphate in Saeki are fillers or additives for cosmetics, coatings, inks, toners, greases for machines, plastics, foods, ceramics and the like (paragraph 0001), and, in Examples 2 and 3, this surface treated amorphous calcium phosphate is used as a component of foundations, and it is not mentioned at all to use it as a component of solutions for electrolysis. On the other hand, it is calcium phosphate itself and not amorphous calcium phosphate surface treated with a metallic soap that is used as a component of solutions for electrolysis in Shir Khanzadeh. One skilled in the art would have never conceived the surface treated amorphous calcium phosphate of Saeki different in utilization fields to be used as a component of solutions for electrolysis in Shir Khanzadeh which requires the use of calcium phosphate itself, in place of calcium phosphate.

Furthermore, the coating substance in new claim 54 is a metallic soap formed by reaction of the nucleus substance with an alkali soap or the like and differs from the metallic soap which is merely a dispersion-mixed with the amorphous calcium phosphate.

From the above three points, it is believed that new claims 72-73 are unobvious over these cited references and are patentable.

Response to the Rejection Stated in Item 13 of the Office Action

It is said "Claim 50 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Saeki in view of Shirkhanzadeh as applied to claims 42-46, 49, and 53 above, and further in view of Hoke (U.S. PG Pub. No. 2001/0031693)." The response to this is the same as in the above item 11.

From the three points stated in the above, it is believed that new claims 75 is unobvious over these cited references and is patentable.

Response to the Rejection Stated in Item 14 of the Office Action

It is said "Claims 51-52 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Saeki in view of Shirkhanzadeh as applied to claims 42-46, 49, and 53 above, and further in view of Trivett (U.S. Patent No. 6,001,784)." Applicants' response is the same as in the above item 11.

From the three points stated in the above, it is believed that new claim 75 is unobvious over these cited references and is patentable.

Applicants' response is the same as in the above.

From the three points set out in item 11 above, it is believed that new claims 76-77 are unobvious over these cited references and are patentable.

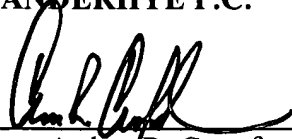
For the above reasons it is respectfully submitted that claims 54-78 are directed to novel and inventive subject matter. Reconsideration and allowance are solicited. Should the examiner require further information, please contact the undersigned.

KOMIYAMA, S. et al.  
Appl. No. 10/508,999  
May 14, 2008

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



Arthur R. Crawford  
Reg. No. 25,327

ARC:eaw  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100